ORNITHOLOGICAL NOTES FROM THE WEST.

BY J. A. ALLEN.

III. NOTES ON THE BIRDS OF THE GREAT SALT LAKE VALLEY.

We arrived at Ogden, Utah, September 1st, and spent the following five weeks ornithologizing in the northeastern portion of the Great Salt Lake Valley. Although the vicinity of Ogden was the principal field of our operations, we made several excursions to the neighborhood of Salt Lake City, and to different points along the eastern shore of the lake. During this time we collected or observed nearly one hundred and forty species of birds, indicating for this locality a comparatively rich avian fauna. From the lateness of the season several of the summer birds had already migrated southward, among these Bullock's oriole and the white pelican. The latter, from its great abundance in summer, forms an interesting feature of the ornithology of the Great Salt Lake Valley. Other species were daily arriving from the mountains or from more northern districts.

The country about Ogden presents unusually varied conditions of locality and climate. The Wahsatch Mountains rise abruptly near the eastern shore of the lake, and some of the peaks are, even in summer, dotted with fields of snow. The broad expanse of water formed by the lake is bordered at intervals with extensive marshes, between which and the mountains stretches a broad arid plain. The willows and cottonwoods that fringe the rivers formerly constituted the only arborescent vegetation in the valley, but now extensive orchards and the numerous trees planted for shade and ornament furnish more favorable haunts for various woodland birds, which are every year increasing in number. While in the valley the summer is almost tropical, a journey of a few hours may take one to the alpine region of the mountains;—from the burning sands of the arid plain to fields of perpetual snow. There is thus as great a variety of localities and climate as can be often found in so limited an area.

The heat throughout the month of September was to us very oppressive, the temperature being that of a New England July; and no rain, it is said, had fallen for nearly four months. During

the first week of October the first snow of the season began to cover the higher parts of the mountains, extending lower with each successive storm, till on the 7th of the month their whole slopes were covered, and rain and sleet fell in the valley. The winds became cold and chilling, and winter seemed to have succeeded summer without the intervention of autumn. Such indeed this year was almost literally the case.

A little more than twenty years ago, as everybody doubtless knows, the Great Salt Lake Valley was entirely a desert, its characteristic vegetation being the "sage brush" and "grease wood," and such similar well-known plants as are found throughout the more excessively arid parts of the West. During the time that has since elapsed the mountain streams have been tapped by the industrious Mormon emigrants, and a portion of their waters conducted in ditches over the plains; thereby literally transforming the barren desert into fruitful fields. Considerable areas have thus been reclaimed, orchards and farms that rival in productiveness those of the most favored portions of our country replacing the repulsive sage brush and its kindred plants. These changes have of course greatly modified the fauna, increasing the number of all the smaller birds, but especially the granivorous and frugivorous kinds, whilst the influx of settlers has materially reduced the number of the water-fowl, although their abundance still forms the most characteristic ornithological feature of the region. Three species are reported to have been recently introduced, which give promise of multiplying rapidly and becoming thoroughly naturalized. These are the European house sparrow (*Passer domesticus*), the common eastern quail (*Ortyx Virginianus*), and the California quail (*Lophortyx Californicus*), all of which, as I was informed, had raised young the past season (1871).

With these general remarks I now pass to a hasty enumeration of the species that came under our observation; premising, however, that the only previous paper especially devoted to the ornithology of this region consists of a brief report by Professor Baird on the birds collected by Captain Stansbury's Expedition,* published in 1852, in which are mentioned thirty-one species.

Of the family of Thrushes, we obtained but four species — the robin, the catbird, mountain mockingbird and hermit thrush. The latter only came down from the mountains about October 1st,

* Stansbury's Expedition to the Great Salt Lake, pp. 314-325.

and we saw but few specimens, but the others were abundant. The robin was formerly rare, but being a general favorite with the settlers it has been carefully protected and seems to be annually increasing in numbers. The mountain mockingbird, familiarly known to the settlers as the "gray bird," is said to have similarly increased, but through its depredations on the smaller fruits—even the peach not escaping its ravages—it has become a proscribed race. The catbird we found as numerous in the thickets bordering the streams as we ever saw it in the East. The arctic bluebird is well known as a spring and autumn visitor, but seems to be most numerous in spring. The titlark (*Anthus Ludovicianus*) abounds at the same seasons, being first observed by us September 15th, though it probably breeds on the neighboring snowy summits of the Wahsatch Mountains. Of the *Sylvicolidæ* or wood-warblers, we collected about a dozen species. The Maryland yellow-throat, the summer yellowbird (*Dendrœca æstiva*), and the yellow-breasted chat are probably common summer residents in the valley; the Blackburnian, Audubon's, the Nashville, the golden-crowned (*Helminthophaga celata*) Macgillivray's and the black-capped flycatching warblers, are all doubtless more or less common at the same season in the adjoining mountains. Nearly all were common in September in the vicinity of Ogden. The ruby-crowned kinglet became frequent about October 1st in the valley, as it had been previously in the mountains. The American ouzel (*Cinclus Mexicana*) was abundant along the mountain streams, and the rock wren was very numerous everywhere on the rocky declivities of the mountains about Ogden, above the upper terrace of the valley. The black-capped chickadee (*Parus atricapillus*, var. *septentrionalis*) was an abundant inhabitant of the willow thickets bordering the Ogden and Weber Rivers, and the reedy marshes were the favorite haunts of thousands of marsh wrens (*Cistothorus palustris*). All the swallows disappeared soon after our arrival; the most frequently observed species being the barn swallow, though the rough-winged and the violet-green were both frequently noticed during the first week of September. The nests of the cliff swallow seen adhering to the cliffs, especially in Weber and Echo Cañons, indicated that this species was also an abundant summer visitant. The red-eyed, warbling, and solitary vireos were all well represented and formed the only species of their family we saw. The cedar bird, the loggerhead shrike, and

the Louisiana tanager were each more or less frequent. The horned lark, so characteristic of the Plains, was also numerous.

The *Tyrannidæ* were well represented, the western race of the wood pewee being abundant, as were also two species of *Empidonax*, one being the western race of the yellow-bellied, and the other a representative of the least pewee of the East. The kingbird and the Arkansas flycatcher were also both frequently observed during the first half of September, and two specimens of the olive-sided pewee were taken.

The great family of the sparrows and finches (*Fringillidæ*) was represented by eighteen species, the greater part of which were common. One half are strictly western, while the others are common species in the Atlantic States. Among the latter were the bay-winged, savanna, the yellow-winged, chipping, song and Lincoln's sparrows, the common gold-finch or yellow bird, and the purple finch, all but the last named being either common or exceedingly abundant. Of the western species, the western white crowned, or Gambel's sparrow, appeared in the valley in great numbers about September 15th; a few specimens of the slate-colored sparrow (*Passerella "schistacea"*) were seen at about the same date, and the Oregon snowbird became common towards the close of the month. Bell's sparrow (*Poospiza Bellii*) was rather numerous on the dry plains, keeping on the ground among the sage brush. The western gold-finch (*Chrysomitris psaltria*) was also quite numerous, associating freely with the common species; and a few specimens of the lazuli finch were also taken. The arctic towhee (*Pipilo "arcticus"*) was an abundant inhabitant of the thickets, in habits strongly resembling the common towhee of the East; though its song is somewhat similar to that of the eastern bird, its call note is totally different, quite nearly resembling the call note of the catbird. Blanding's finch (*Pipilo chlorurus*) began to appear in numbers about September 20th, from its breeding haunts in the mountains. The clay-colored sparrow (*Spizella pallida*) was generally found in company with the chipping sparrow, and was almost equally abundant. The black-headed grosbeak is a summer resident, but like its eastern congener, the rose-breasted, departs early for the south, and had already migrated when we arrived. It is well known as the "Pea-bird," from its fondness for green peas, of which it is so destructive that it is considered an obnoxious species.

The *Icteridæ*, or blackbirds, grackles and their allies, were represented by five or six species, of which three, the yellow-headed, red-winged and Brewer's, occurred in immense numbers. The yellow-headed and red-winged live in the marshes, from which at this season they make excursions in great flocks over the neighboring country, by their voracity and numbers causing no little loss to the farmers, by destroying the ripening corn. The Brewer's blackbird, though less an inhabitant of the marshes, to a considerable extent associates with them, and is only less destructive because less numerous. The immense flocks of these associated species bring vividly to mind the descriptions of Wilson and others of the hordes of red-wings and grackles that occur in autumn and winter in the more southern portions of the Atlantic States. The meadow lark is the next most abundant species of this group. The cowblackbird, though perhaps occurring, was not observed, but to our great surprise the bobolink was quite frequent. Bullock's oriole is also a common summer resident, taking the place of our familiar Baltimore of the East.

Among the *Corvidæ*, the raven and the magpie were both common, the latter near the streams and the former more generally distributed; the great-crested, Woodhouse's and the Canada jays were of frequent occurrence in the mountains, the former being familiarly known as the "mountain jay." The common crow is said also to be common, but it escaped our notice.

Nuttall's whippoorwill was abundant on the lower parts of the mountains, and we heard scores of them near the mouth of Ogden Cañon on several occasions, after nightfall. Though so numerous, all our efforts to procure specimens were futile, as it did not usually manifest its presence till after it became too dark for it to be clearly distinguished. We saw the last one October 7th, during a severe snow-storm on the mountains north of Ogden, the snow having already accumulated to the depth of several inches. The snow had probably surprised the bird as much as its own presence under such peculiar circumstances did us. The night hawk and the broad-tailed humming bird were both common through the greater part of September, and the kingfisher is doubtless a common resident throughout the year.

The woodpeckers, owing to the scarcity of woodland, were sparsely represented. Only two species were noticed, one of which, apparently the downy woodpecker, was seen once, and the

other, the red-shafted, was only moderately common. Its evident habit here of sometimes breeding in banks, in the absence of suitable trees, has already been mentioned.* The only owls noticed were the burrowing (*Athene hypogœa*), which in the absence of the prairie dogs lives in the holes of coyotes; and one specimen of the long-eared owl; the great horned owl is said to be of frequent occurrence, especially in the winter. The marsh hawk was abundant, and often seen swooping down over the marshes at the blackbirds, but, generally unsuccessfully, the blackbirds rising in clouds before it with a heavy noise not unlike low distant thunder, soon to settle again in another part of the marsh. The pigeon hawk and the duck hawk were both frequent, the latter preying upon the water fowl. A ruddy duck, struck down and killed by one of these birds, was added one day to our game bag and made a good specimen and the hawk narrowly escaped the same fate. The sparrow hawk, however, was by far the most numerous of the *Falconidæ;* thirty were seen in the air at one time near the mouth of Weber Cañon, engaged in the capture of the "hateful grasshopper" (*Caloptenus spretus* Uhler), which everywhere filled the air, and which seems at this season to form the principal food of this and other birds. The red-tailed hawk, and the golden and white-headed eagle were more or less frequent, and the fish hawk is said to be a rather common summer resident. The turkey vulture was also common.

The Carolina dove was abundant, and is said to breed here, also, generally on the ground.† But few grouse were seen, though evidence was obtained of the presence of four species;—the dusky and the ruffed grouse (*Tetrao obscurus* and *Bonasa umbellus*) in the mountains, and the sage cock and the sharp-tailed on the plains, specimens of the last two being obtained. The sage cock and the sharp-tailed grouse were formerly very abundant, but this year we saw only about a dozen of each, and were informed that it never was known to be so scarce here before.

Of the plovers, the killdeer was the only one seen, and was exceedingly abundant. About a dozen species of *Scolopacidæ* were obtained, of which the greater part were numerously represented.

---

*This Journal, May, p. 274.

† Prof. O. C. Marsh has informed me that he "can confirm my statement [in the May NATURALIST] that the Carolina dove *breeds on the ground*. In Western Kansas and in Colorado," he adds "I have often found the eggs, and young on the ground. Once I flushed a female who was covering a couple of very young birds on the ground,—not in a nest but in a small depression *on the bare ground*."

Wilson's snipe was so abundant that Mr. Bennett bagged fourteen in the space of a few hours. The red-breasted sandpiper became common after September 25th. The greater yellow-legs and the red-backed sandpiper were also common; whilst the spotted, solitary and least sandpipers and the lesser yellow-legs were only occasionally met with. Wilson's phalarope, the avocet, and the black-necked stilt were abundant and characteristic birds, being summer residents and breeding abundantly on the islands and shores of Salt Lake. The last two are called "white snipes!" Of the avocet we saw flocks of thousands on the sand bars and mud flats at the mouth of Weber River. The glossy ibis (called "black snipe!") is now a common summer bird, but we were assured it had only made its appearance here during the last few years. The white ibis seems to be also a common summer species, which we saw, however, but once; and the greater part of the glossy ibises had migrated before our arrival. Of the seven specimens seen we obtained five, although we found it an excessively wary bird.

Of herons we saw the great blue, and obtained the night heron and the bittern, all of which were tolerably common; and cranes are said to occur in abundance in spring and fall. Of rails, the Virginia, the Carolina, and the marsh hen (*Rallus elegans*) were apparently the most common, though few of either were seen. The mud-hen or coot, however, was found in all the ponds and lagoons in great numbers.

The abundance of the swimming birds is even now almost incredible, though they are far less numerous and much more wary than formerly. Thirteen species of ducks were obtained without special effort, all of which were common, and about one-third were abundant, as follows:— the pintail, green-winged teal, red-breasted teal, gadwall and red-head were each abundant, whilst the mallard, shoveller, widgeon, wood duck, scaup duck, ruddy duck and goosander were common. The Canada goose was also numerous, and the snow goose or "white-brant" began to arrive in considerable numbers about October 1st. Two species of grebe were also noticed, the horned and the Carolina, the latter being abundant. Three species of *Laridæ* were obtained, two of which were seen only after about October 1st. These were the Sabine's gull, of which but a single specimen was either taken or seen, and Bonaparte's gull. The three adult specimens taken of the latter

differ from the eastern representatives of that bird in having a much shorter, thicker and less decurved bill. The Delaware gull, or its western representative, is a numerous summer resident, breeding on the islan ls in great numbers. At the time of our visit these birds spent much of their time on the sand bars of the Weber River, below Weber Cañon, and at certain hours of the day rose into the air to feast on the grasshoppers, on which they seemed at this time almost wholly to subsist. The stomachs of those we killed were not only filled with them, but some had stuffed themselves so full that the grasshoppers could be seen on opening their mouths. But what seems most singular is the fact that they capture them in the air (not by walking over the ground, as has been stated), sailing around in broad circles as though soaring merely for pleasure, seizing the flying grasshoppers with the same ease that a swallow exhibits in securing its prey of smaller insects while in rapid flight, but of course with far less gracefulness of motion.

Two other interesting birds found here are the double-crested cormorant and the white pelican, the former bearing the singular local name of "black brant!" We saw the cormorants only on Weber River, but, according to Stansbury, they breed on the islands with the gulls and pelicans. The pelicans leave for the south towards the end of August or early in September. Although we saw no live ones, we found one on our first arrival that had been killed but a few days before by gunners. Concerning the abundance of this and other species of water-fowl on the islands during his survey of the Great Salt Lake, Captain Stansbury, under date of Gunnison's Island, May 8th, 1850, writes as follows:—

"The whole neck and the shores on both of the little bays were occupied by immense flocks of pelicans and gulls, disturbed now for the first time, probably, by the intrusion of man. They literally darkened the air as they rose upon the wing, and, hovering over our heads, caused the surrounding rocks to reëcho with their discordant screams. The ground was thickly strewn with their nests, of which there must have been some thousands. Numerous young, unfledged pelicans, were found in the nests on the ground, and hundreds half-grown, huddled together in groups near the water, while the old ones retired to a long line of sand-beach on the southern side of the bay, where they stood drawn up, like Prussian soldiers, in ranks three or four deep, for hours together, apparently without motion. . . We collected as many eggs as we could carry. That of the gull is of the size of a hen's egg, brown and

spotted; that of the pelican is white, and about as large as a goose egg." (Stansbury's Report, p. 179.)

Again, on page 188, under date of Antelope Island, May 20th, Captain Stansbury observes:—

"Before we passed around the point of Antelope Island, we stopped for a few moments at the little islet near it, where the number of gulls and pelicans was, if possible, greater than we had seen on Gunnison's Island. The whole islet was covered with eggs, chiefly those of gulls, and with innumerable young birds, just hatched, the most of which on our appearance instinctively concealed themselves among the crevices of the rocks, while the parent birds, in countless numbers, anxiously hovered over us, filling the air with their discordant cries. Some young herons and cormorants were also found amid the colony of gulls — the former fierce and full of fight, the latter timid and alarmed, running from their nests to the water, where they endeavored to conceal themselves by persevering but abortive attempts to dive. We filled half a barrel with the eggs, but most of them proved to be bad."

The waters of the Salt Lake, of course, afford these birds no food. That of the pelican, says Stansbury (p. 193), "consists entirely of fish, which they must necessarily obtain either from Bear River, from the Weber, the Jordan, or from the Warm Springs on the eastern side of Spring Valley, at all of which places they were observed fishing for food. The nearest of these points is more than thirty miles distant, making necessary a flight of at least sixty miles to procure and transport food for the sustenance of their young."

In concluding these brief notes on the birds of the West, a few general observations may be added. Probably every observing collector who has had the opportunity of studying birds in their native haunts at widely separated localities has noticed differences in the songs or notes of birds of the same species at distant points in the common habitat of the species. My own experience has been that at southern localities, the songs of certain species are abbreviated, and generally uttered with less energy than at the north. In other cases, garrulous birds, like the jays and some others, have certain common notes at some localities not heard at all at others, when in color or other features they differ but slightly, if at all, there being as it were local dialects in their respective languages. On the other hand, the songs of species that differ widely in color, are sometimes so closely similar as almost to defy the most discriminating ear to detect the species by their songs,

though some of their call notes may be quite different. At other times they differ in habits, especially in respect to the situation and form of the nest, the same species at some localities breeding always on trees and at others almost as uniformly on the ground, in cases where the identity of the species is admitted by every ornithologist. In like manner some that at some localities build domed nests, at others build an open nest; others vary from a somewhat elaborate bulky nest, to a much simpler and more slight one; whilst in all cases the material varies in accordance with the respective abundance of whatever may be most suitable to the wants or habits of the species. Thus, on the Plains, many species line their nests with the soft hair of the buffalo in place of the down from certain plants they are accustomed to choose at other localities.

The question of the occurrence of supposed hybridity among certain of the birds of the West is one of constantly increasing interest. The facts of the case are simply these:— that between several congeneric but widely diverse forms occur individuals over the region where the habitats of the two adjoin, which combine in varying degrees the characteristics of both forms. These individuals have been generally supposed to be hybrids between the forms they respectively resemble, but whether such or not, in a technical sense, they are evidently fertile with either of the original forms, and also among themselves. Furthermore, that on either side of the area of "hybridity," either form exhibits in varying degrees an admixture of the characters of the other, the degree lessening on either hand over an area of usually several hundred miles in breadth, till each form assumes nearly constantly its maximum divergence from the other. Such in general is the nature of what I have termed longitudinal variation, or the differentiation of conspecific forms at localities differently situated in respect to longitude. Similar differentiation occurs at localities differing in latitude, which hybridity has never been assumed to explain, though it is difficult to see why it should not be called in as well in the one case as in the other. In each case we have a similar gradual differentiation over extensive areas. Hybridity has been generally regarded as an unfailing test of specific diversity, but here one of two things must be assumed:— either that hybridity fails as a test of specific diversity, or else that these widely differing congeneric forms are only geographical modifications of the same

species, resulting from at present only partially known laws of climatic influence. To the latter I incline as being the most rational and the best supported by analogy and by facts.*

NOTE.—In the article on the Birds of Colorado, in the June number of this Journal, I omitted to add that several specimens of the white-throated wren (*Catherpes Mexicanus*) were obtained near Colorado City, where it was a common species. This is the first time, apparently, that this species has been reported from any point within the United States east of Southern Nevada (*Ridgway*). It possesses a voice of wonderful strength and penetration for so small a bird, and seemed to delight in the startling echoes it awakened among the high cliffs of the "Garden of the Gods."

On page 350, June number of this Journal, it was stated that *Chamea fasciata* was apparently common near Colorado City. As it has been heretofore known only from the extreme southwestern portions of the United States, I should perhaps add that no specimens were taken, but as I was within a few yards of it on a number of occasions, I cannot doubt the correctness of the observation.

I take this opportunity of correcting the following *errata*: On page 345, line 12, *read* chipping *for* "nipping;" p. 347, line 28, read *Selasphorus* for "*Selasophorus*;" p. 350, line 3, read *tephrocotis* for "*griseinucha*;" p. 351, line 6, read *Actodromas Bairdii* for "*Pelidna Americana*."

VISIT TO THE ORIGINAL LOCALITY OF THE NEW SPECIES OF ARCEUTHOBIUM IN WARREN COUNTY, N. Y.

BY C. C. PARRY, M.D.

HAPPENING to spend a few days in the vicinity of Glen's Falls, N. Y., I concluded to improve the opportunity of visiting the locality of the newly discovered species of *Arceuthobium* (*A. minutum* Engel. ined.) parasitic on *Abies nigra*.

I accordingly called on Mrs. Lucy Millington of the above place, to obtain the desired information as to the precise locality where it was first found. It is to this lady that the botanical world is indebted for the discovery of this interesting addition to the Flora of New York. Mrs. Millington's first specimens were collected on the 10th of August, 1871,† and were then recognized by her as a distinct parasite of which she could find no account in any of the botanical works at her command. Specimens were accordingly

*On climatic variation see Bull. Mus. Comp. Zoöl., Vol. ii, No. 3, and Vol. iii, No. 6, where the subject is further discussed, and where most of the facts on which the above remarks are based are given in detail.

†A brief record of Mrs. Millington's discovery has been given on page 166 of this volume of the NATURALIST.—Eds.